



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
ENFORCEMENT AND
COMPLIANCE ASSURANCE

December 28, 2015

David Steensen
Chief, Geologic Resource Division
National Park Service
P.O. Box 25287
Denver, CO 80225

Dear Mr. Steensen,

In accordance with our responsibilities under Section 309 of the Clean Air Act and the National Environmental Policy Act (NEPA), the Environmental Protection Agency (EPA) has reviewed the U.S. National Park Service's (NPS) 2015 Draft Environmental Impact Statement (EIS) for the Revision of 9B Regulations Governing Non-Federal Oil and Gas Activities (CEQ No. 20150295).

The draft EIS evaluated the impacts of two alternatives, in addition to the no action alternative. The alternatives included the following elements: 1) eliminating two regulatory provisions that exempt 60% of the oil and gas operations in NPS units. All operators in NPS units would be required to comply with the 9B regulations; 2) eliminating the financial assurance (bonding) cap. Financial assurance would be equal to the reasonable estimated cost of site reclamation; 3) improving enforcement authority by incorporating existing NPS penalty provisions. Law enforcement staff would have authority to write citations for noncompliance with the regulations; 4) authorizing compensation to the federal government for new access on federal lands outside the boundary of an operator's mineral right; and 5) reformatting the regulations to make it easier to identify an operator's information requirements and operating standards that apply to each type of operation.

EPA appreciates the efforts of the NPS to revise the 9B oil and gas regulations that have been in effect for the last 36 years. EPA supports the selection of Alternative B as the Preferred Alternative. As a result of the revisions, grandfathered/exempt nonfederal oil and gas activities on NPS lands will be subject to the NPS's 9B oil and gas regulations; in addition all operations will be subject to Regulation 9B's existing standards. We appreciate the NPS' efforts to protect public health and safety by incorporating new requirements that will ensure that all non-federal

oil and gas operations conducted in national park units avoid or minimize adverse effects on natural and cultural resources, visitor use, and park infrastructure and management.

Based on our review of the draft EIS, we offer the following comments for consideration to be included in the final EIS:

- We recommend that the final EIS address the possibility of high concentrations of radioactive elements in any waste waters and associated solids or explain why no radioactive elements are expected. The draft EIS does not mention the possibility that the produced/flowback fluid may contain radioactive elements and that the radioactive elements may become concentrated in the fluid. However, geologic formations (especially black shales) that contain oil and gas deposits (and produced water) also contain naturally-occurring radionuclides, which are referred to as Naturally Occurring Radioactive Materials. Radionuclides, along with other minerals that are dissolved in the produced/flowback water, separate and settle out, forming various wastes at the surface such as in mineral scales inside pipes, sludges/sediments in the bottom of tanks, contaminated equipment or components, in spills to the surface, and produced waters. These wastes are classified as Technologically Enhanced Naturally Occurring Radioactive Material due to the extraction process which concentrates the naturally occurring radionuclides and exposes them to the surface environment and possible human contact.
- We recommend the final EIS discuss whether there is potential for induced seismicity due to underground injection of produced/flowback waters and what mitigations or management controls would be used to reduce or eliminate any problems or concerns. Induced seismicity is an increasing concern in regions of the United States where the produced fluids and wastewaters from oil and natural gas production activities are being injected into the subsurface through deep disposal wells.

Since additional NEPA analysis will be needed for any plans of operation associated with oil and gas activities, EPA recommends that the NPS:

- As appropriate use the “Memorandum of Understanding (MOU) Regarding Air Quality Analyses and Mitigation for Federal Oil and Gas Decisions through the National Environmental Policy Act Process” which the EPA, U.S. Department of Agriculture and U.S. Department of Interior entered into on June 11, 2011. Based on this MOU, future projects implemented under the NPS’ regulations may be subject to additional air quality analyses and project level mitigation. It may be appropriate to utilize the MOU’s agency stakeholder process to share reasonably foreseeable development and emissions inventory information and to determine appropriate steps for the air quality analysis, such as quantitative air quality modeling.
- Disclose and consider the potential environmental effects of oil and gas development on air quality in the planning areas, and determine whether there is a need to revise management actions or develop stipulations to minimize the potential air quality impact of oil and gas development. This would include emissions of criteria air pollutants and

hazardous air pollutants that can cause or contribute to human health impacts or impacts to Air Quality Related Values such as visibility, vegetation, water, fish and wildlife. We also recommend that you identify potential mitigation measures including control measures and design features such as equipment type and design requirements, emission standards or limitations, best management practices, dust suppression measures for unpaved roads and construction areas, add-on control technologies, and limitations on the density and/or pace of development.

- We also recommend that the NPS revise and update the information provided on page 187 of the draft EIS concerning the EPA's hydraulic fracturing drinking water study. Specifically, we suggest that the NPS review and consider using the more recent information provided in the EPA's draft hydraulic fracturing drinking water assessment report (USEPA 2015). This assessment summarizes over 950 sources of data and information on the potential impacts of hydraulic fracturing on drinking water resources in the United States. The assessment is organized following the same hydraulic fracturing water cycle outlined in the progress report (USEPA 2012) cited in the draft EIS. The EPA also suggests that the NPS review and cite as appropriate the final reports and journal articles that have resulted from the EPA's hydraulic fracturing drinking water study. Specifically, we suggest the NPS take a look at the reports concerning: water acquisition for hydraulic fracturing in Pennsylvania and Colorado (USEPA 2015); chemicals used in hydraulic fracturing (USEPA 2015); well construction characteristics (USEPA 2015), and; spills of hydraulic fracturing fluids and flowback and produced water (USEPA 2015). The draft assessment, final EPA technical reports, and journal articles resulting from the EPA's study may be downloaded through the web site: www.epa.gov/hfstudy. Finally, the EPA suggests that the reference USEPA 2013c is not part of the hydraulic fracturing drinking water study and is inappropriately used in the context of the paragraph on page 187. Consider the use of EJSCREEN, the EPA's environmental justice screening and mapping tool that utilizes standard and nationally-consistent data to highlight places that may have higher environmental burdens and vulnerable populations, when determining potential project-specific impacts to minority and low-income populations.
- Conduct appropriate greenhouse gas (GHG) and climate change analyses for subsequent project-specific operation actions. We recommend the use of the Council on Environmental Quality's December 2014 revised draft guidance for consideration of GHG emissions and climate change impacts in NEPA.

In addition, we recommend the final EIS include information related to the Endangered Species Act and National Historic Preservation Act consultation and coordination requirements in the appendix to final EIS.

In summary, the EPA believes the actions proposed under the draft EIS will result in reduced adverse impacts on resources. We have rated the proposed action a "LO" (Lack of Objections). A copy of the EPA's rating criteria is enclosed. If we can provide further explanation of our comments, I can be reached at 202-564-5400, or you can contact Julie Roemele of my staff at 202-564-5632.

Sincerely,

A handwritten signature in blue ink that reads "Susan E. Bromm" followed by a long, horizontal, wavy line.

Susan E. Bromm
Director
Office of Federal Activities

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